

**Lewatit MDS 1368 Ca 290** is a food grade, gel-type, monodisperse, strongly acidic cation exchange resin based on a styrene-divinylbenzene copolymer. Because of its fine bead size, it is particularly suitable for chromatographic separations, such as the separation of glucose and fructose.

If using **Lewatit** <sup>®</sup> **MDS 1368 Ca 290** for the treatment of drinking water and the aqueous solutions mentioned above, the startup recommendations are to be observed, which are available on demand.

The special properties of this product can only be fully utilized if the technology and process used correspond to the current state-of-the-art. Further advice in this matter can be obtained from Lanxess, Business Unit Liquid Purification Technologies.



## **Common Description**

| Delivery form    | Ca <sup>2+</sup>         |
|------------------|--------------------------|
| Functional group | Sulfonic acid            |
| Matrix           | Styrenic                 |
| Structure        | Gel                      |
| Appearance       | Light brown, translucent |

## **Specified Data**

| Uniformity coefficient               |     | max.      | 1.15      |
|--------------------------------------|-----|-----------|-----------|
| Mean bead size                       | d50 | mm        | 0.26-0.32 |
| Total capacity (H <sup>+</sup> form) |     | min. eq/L | 1.8       |





## Typical Physical and Chemical Properties

| Bulk density for shipment             | (+/- 10%) | g/L              | 780       |
|---------------------------------------|-----------|------------------|-----------|
| Density                               |           | approx. g/mL     | 1.3       |
| Water retention (H <sup>+</sup> form) |           | approx. weight % | 47-53     |
| Stability pH range                    |           |                  | 5-14      |
| Stability temperature                 |           | C°               | 1-120     |
| range                                 |           |                  |           |
| Storage time (after                   |           | min. years       | 0.5       |
| delivery)                             |           |                  |           |
| Storage temperature                   |           | C°               | -20 - +40 |
| range                                 |           |                  |           |

## Operation

| Operating temperature                                 |                   | max. °C         | 120  |
|---|-------------------|-----------------|------|
| Operating pH range                                    | during exhaustion |                 | 0-14 |
| Bed depth for single column                           |                   | min. mm         | 800  |
| Back wash bed<br>expansion per m/h<br>(20°C)          |                   | %               | 15   |
| Specific pressure loss<br>kPa*h/m <sup>2</sup> (15°C) |                   | kPa*h/m² (15°C) | 4    |
| Max. pressure loss during operation                   |                   | kPa             | 200  |





### Additional Information & Regulations

#### Safety precautions

Strong oxidants, e.g. nitric acid, can cause violent reactions if they come into contact with ion exchange resins.

### Toxicity

The safety data sheet must be observed. It contains additional data on product description, transport, storage, handling, safety and ecology.

### Disposal

In the European Community Ion exchange resins have to be disposed, according to the European waste nomenclature which can be accessed on the internet-site of the European Union.

### Storage

It is recommended to store ion exchange resins at temperatures above the freezing point of water under roof in dry conditions without exposure to direct sunlight. If resin should become frozen, it should not be mechanically handled and left to thaw out gradually at ambient temperature. It must be completely thawed before handling or use. No attempt should be made to accelerate the thawing process.

### Packaging

The experience has shown that the packaging stability for reliable resin containment is limited to 24 months under the storage conditions described above. It is therefore recommended to use the product within this time frame; otherwise the packaging condition should be checked regularly.



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